I hereby certify that this correspondence is being deposited with the U.S. Postal Service with sufficient postage as First Class Mail, in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on the

Signature:

Docket No.: GFI/102

(PATENT)

NOV 0 8 2005

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

The Patent Application of: Vildt et al.

Application No.: 10/500,240

Confirmation No.: 3290

Filed: March 23, 2005

Art Unit: 1632

For:

METHOD TO ENGINEER MAMMALIAN-

TYPE CARBOHYDRATE STRUCTURES

Examiner: Not Yet Assigned

INFORMATION DISCLOSURE STATEMENT (IDS)

Mail Stop Amendment Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Dear Sir:

Pursuant to 37 C.F.R. §§§ 1.56, 1.97 and 1.98, the attention of the Patent and Trademark Office is hereby directed to the references listed on the attached PTO/SB/08. It is respectfully requested that the information be expressly considered during the prosecution of this application, and that the references be made of record therein and appear among the "References Cited" on any patent to issue therefrom.

This Information Disclosure Statement is filed before the mailing date of a first Office Action on the merits as far as is known to the undersigned (37 CFR 1.97(b)(3)).

Applicant has not submitted copies of each cited U.S. patent and U.S. patent application as required by 37 CFR 1.98(a)(2)(i), amended October 2004, as the U.S. Patent and Trademark Office has waived this requirement for all U.S. patent applications. Applicant submits herewith copies of foreign and non-patents in accordance with 37 C.F.R. § 1.98(a)(2).

In accordance with 37 C.F.R. § 1.97(g), the filing of this Information Disclosure Statement shall not be construed to mean that a search has been made or that no other material information as defined in 37 C.F.R. § 1.56(a) exists. In accordance with 37 C.F.R. § 1.97(h), the Application No.: 10/500,240 Docket No.: GFI/102

filing of this Information Disclosure statement shall not be construed to be an admission that any patent, publication or other information referred to therein is "prior art" for this invention unless specifically designated as such.

It is submitted that the Information Disclosure Statement is in compliance with 37 C.F.R. § 1.98 and the Examiner is respectfully requested to consider the listed references.

The Director is hereby authorized to charge any deficiency in the fees filed, asserted to be filed or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Deposit Account No. 06-1075, under Order No. GFI/102. A duplicate copy of this paper is enclosed.

Dated: November 4, 2005

Respectfully submitted,

Gloria Fuentes

Registration No.: 47,580

ROPES & GRAY LLP

1251 Avenue of the Americas

New York, New York 10020-1104

(212) 596-9000

(212) 596-9090 (Fax)

Attorneys/Agents For Applicant

NOV 0 8 2005 E

Approved for use through 07/31/2008. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

ork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

PTO/SB/08a/b (08-03)

Complete if Known Substitute for form 1449A/B/PTO 10/500,240 Application Number INFORMATION DISCLOSURE June 25, 2004 Filing Date STATEMENT BY APPLICANT Stefan Wildt et al. First Named Inventor Art Unit Not Yet Assigned (Use as many sheets as necessary) Examiner Name Not Yet Assigned GFI/102 Sheet 1 of 6 Attorney Docket Number

U.S. PATENT DOCUMENTS								
Examiner Initials*	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear							
	AA	US 5,595,900	01-21-1997	John B. Lowe				
	AB	US 6,300,113	10-09-2001	David Landry				

	-	FOREIG	GN PATENT	DOCUMENTS		
Examiner Initials*	Cite No.1	Foreign Patent Document Country Code ³ -Number ⁴ -Kind Code ⁵ (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	Τ°
	ВА	WO 02/00879	01-03-2002	Gerngross		
<u> </u>						

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁸ Applicant is to place a check mark here if English language Translation is attached.

		NON PATENT LITERATURE DOCUMENTS		
Examiner Initials	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	te), title of the item (book, mber(s), publisher, city	
	CA	Abdel-Salam et al., "Expression of mouse anticreatine kinase (MAK33) monoclonal antibody in the yeast Hansenula polymorpha", Appl. Microbiol. Biotechnol., 56:157-164 (2001).		
	СВ	Aebi et al., "Cloning and Characterization of the ALG3 Gene of Saccharomyces Cerevisiae" Glycobiology 6(4): 439-444 (1999).		
	СС	Abeijon et al., "Molecular Cloning of the Golgi apparatus uridine diphosphate-N-acetylglucosamine transporter from <i>Kluyveromyces lactis</i> " <i>Proc. Natl. Acad. Sci.</i> USA 93:5963-5968 (1996).		
	CD	Alverez et al., "Sequences of the mouse N-acetylglucosaminyltransferase V (<i>Mgat5</i>) mRNA and an mRNA expressed by an <i>Mgat</i> -deficient cell line" <i>Glycobiology</i> 12 (7), 389-394 (2002)		
	CE	Aoki et al., "Expression and activity of chimeric molecules between human UDP-galactose transporter and CMP-sialic acid transporter", <i>J. Biochem</i> . (Tokyo), 126(5):940-50 (1999).		
	CF	Beaudet et al., "High-level expression of mouse Mdr3 P-glycoprotein in yeast <i>Pichia pastoris</i> and characterization of ATPase activity", <i>Methods Enzymol.</i> , 292:397-413 (1998).		
	CG	Berka et al., "The Filamentous Fungus Aspergillus niger var. Awamori as Host for the Expression and Secretion of Fungal and Non-Fungal Heterologous Proteins", Abstr. Papers Amer. Chem. Soc. 203:121-BIOT (1992).		
	СН	Berninsone et al., "The Golgi guanosine diphophatase is required for transport of GDP-mannose into the lumen of Saccharomyces cerevisiae Golgi vesicles", <i>J. Biol. Chem.</i> , 269(1):207-211 (1994).		
	CI	Berninsone et al., "Regulation of Yeast Golgi Glycosylation", J. Biol. Chem., 270 (24): 14564-14567 (1995).		

Examiner	Date
Signature	Considered
9.9.1.1.1	

Sub	estitute for form 1449A/B/F	PTO		Complete if Known		
000	isulate for form 1440, 427.	. •		Application Number	10/500,240	
IN	NFORMATIO	N DIS	SCLOSURE	Filing Date	June 25, 2004	
S	TATEMENT	BY A	PPLICANT	First Named Inventor	Stefan Wildt et al.	
				Art Unit	Not Yet Assigned	
	(Use as many sheets as necessary)			Examiner Name	Not Yet Assigned	
Sheet	2	of	6	Attorney Docket Number	GFI/102	

CJ Berninsone et al., "Functional Expression of the Murine Golgi CMP-Sialic Acid Transporter in Saccharomyces cerevisiae", J. Biol. Chem. 272(19):12816-9 (1997). CK Berninsone, "Nucleotide Sugar Transporters of the Golgi Apparatus." Current opinion in Structural Biology, Biology 10: 542-547 (2000). CL Bianchi et al., "Transformation of the yeast Kluyweromyces lactis by new vectors derived from the 1.6 µm circular plasmid pKD1", Current Genetics, 12:185-192 (1987). CM Boehm et al., "Disruption of the KEX1 Gene in Pichia pastoris Allows Expression of Full-Length Murine and Human Endostatin", Yeast, 15:563-572 (1999). Bretthauer et al., "Glycosylation of Pichia pastoris-derived proteins", Biotechnology and Applied Biochemistry 30:193-200 (1999). CO Burda et al., "A Novel Carbohydrate-Deficient Glycoprotein Syndrome Characterized by a Deficiency in Glucosylation of the Dolichol-Linked Oligosaccharide", J. Clin. Invest., Vol. 102, No. 4, 647-652, August 1998. CP Burda et al., "Stepwise Assembly of the Lipid-Linked Oligosaccharide int he Endoplasmic Reticultum of Saccharomyces Cerevisiae: Idenfication of the ALG9 Gene Encoding a Putative Mannosyl Transferase", Proc. Natl. Acad. Sci., U.S.A., July 1996 (93): 7160-7165. CQ Cereghino et al., "Heterologous protein expression in the methylotrophic yeast Pichia pastoris", FEMS Microbiology Reviews, 24(1):45-66 (2000). CR Cereghino et al., "New selectable marker/auxotrophic host strain combinations for molecular genetic manipulation of Pichia pastoris", Gene, 263:159-159 (2001). CS Chantret et al., "Congenital Disorders of Glycosylation Type Ig is Defined by a Deficiency in Dolichyl-P-mannose: Man7GlcNAc2-PP-dolichyl mannosyltransferase", J. Biol. Chem., Jul. 12, 2002 (277) 28:25815-25822. CT Chiba et al., "Production of Human Compatible High Mannose-type Sugar Chains in Saccharomyces cerevisiae", J. Biol. Chem., 273(41):26298-26304 (1998). CU Choi et al., "The Saccharomyces Cerevisiae alg/12della Mutant Reveals a Role for the Middle-arm Alpha1, 2Man-and Upper-Ar			
 CK Berninsone, "Nucleotide Sugar Transporters of the Golgi Apparatus." Current opinion in Structural Biology, Biology 10: 524-547 (2000) CL Bianchi et al., "Transformation of the yeast Kluyweromyces lactis by new vectors derived from the 1.6 μm circular plasmid pKD1", Current Genetics, 12:185-192 (1987). CM Boehm et al., "Disruption of the KEXT Gene in Pichia pastoris Allows Expression of Full-Length Murine and Human Endostatin", Yeast, 15:563-572 (1999). CN Bretthauer et al., "Glycosylation of Pichia pastoris-derived proteins", Biotechnology and Applied Biochemistry 30:193-200 (1999) CO Burda et al., "A Novel Carborhydrate-Deficient Glycoprotein Syndrome Characterized by a Deficiency in Glucosylation of the Dolichol-Linked Oligosaccharide", J. Clin. Invest., Vol. 102, No. 4, 647-652, August 1998. CP Burda et al., "Stepwise Assembly of the Lipid-Linked Oligosaccharide int he Endoplasmic Reticulum of Saccharomyces Cerevisias: Idenfication of the ALG9 Gene Encoding a Putative Mannosyl Transferase", Proc. Natl. Acad. Sci. U.S.A., July 1996 (93): 7160-7165. CQ Cereghino et al., "Heterologous protein expression in the methylotrophic yeast Pichia pastoris", FEMS Microbiology Reviews, 24(1):45-66 (2000). CR Cereghino et al., "New selectable marker/auxotrophic host strain combinations for molecular genetic manipulation of Pichia pastoris", Gene, 263:159-169 (2001). CS Chantret et al., "Congenital Disorders of Glycosylation Type Ig is Defined by a Deficiency in Dolichyl-P-mannose: Man7GlcNAc2-PP-dolichyl mannosyltransferase", J. Biol. Chem., Jul. 12, 2002 (277) 28:25815-25822. CT Chiba et al., "Production of Human Compatible High Mannose-type Sugar Chains in Saccharomyces cerevisiae", J. Biol. Chem., 273(41):26298-28304 (1998). CU Choi et al., "Use of combinational genetic libraries to humanize N-linked glycosylation in the yeast Pichia pastoris", Proc. Natl. Acad. Sci. USA 100:	CJ	Saccharomyces cerevisiae", J. Biol. Chem. 272(19):12616-9 (1997).	
the 1.6 µm circular plasmid pKD1", Current Genetics, 12:185-192 (1987). CM Boehm et al., "Disruption of the KEX1 Gene in Pichia pastoris Allows Expression of Full-Length Murine and Human Endostatin", Yeast, 15:563-572 (1999). EN Bretthauer et al., "Glycosylation of Pichia pastoris-derived proteins", Biotechnology and Applied Biochemistry 30:193-200 (1999). CO Burda et al., "A Novel Carbohydrate-Deficient Glycoprotein Syndrome Characterized by a Deficiency in Glucosylation of the Dolichol-Linked Oligosaccharide", J. Clin. Invest., Vol. 102, No. 4, 647-652, August 1998. CP Burda et al., "Stepwise Assembly of the Lipid-Linked Oligosaccharide int he Endoplasmic Reticulum of Saccharomyces Cerevisiae: Idenfication of the ALG9 Gene Encoding a Putative Mannosyl Transferase", Proc. Natl. Acad. Sci. U.S.A., July 1996 (93): 7160-7165. CQ Cereghino et al., "Heterologous protein expression in the methylotrophic yeast Pichia pastoris", FEMS Microbiology Reviews, 24(1):45-66 (2000). CR Cereghino et al., "New selectable marker/auxotrophic host strain combinations for molecular genetic manipulation of Pichia pastoris", Gene, 263:159-169 (2001). CS Chantret et al., "Congenital Disorders of Glycosylation Type Ig is Defined by a Deficiency in Dolichyl-P-mannose: Man7 GlcNAc2-PP-dolichyl mannosyltransferase", J. Biol. Chem., Jul. 12, 2002 (277) 28:25815-25822. CT Chiba et al., "Production of Human Compatible High Mannose-type Sugar Chains in Saccharomyces cerevisiae", J. Biol. Chem., 273(41):26298-26304 (1998). CU Choi et al., "Use of combinatorial genetic libraries to humanize N-linked glycosylation in the yeast Pichia pastoris", Proc. Natl. Acad. Sci. USA 100:5022-5027 (2003). CV Cipollo et al., "The Saccharomyces Cerevisiae alg12delia Mutant Reveals a Role for the Middle-arm Alpha1, 2Man-and Upper-Arm alpha1, 2Manalpha1, 6Man- Residues of Glc3Man9GlcNAc2-PP-Dol in Regulating Glycoprotein Glycoprotein Glycan Processing in the Endloplasmic Reticulum and Golgi Apparatus". Glycobiology 2002, (12) 11:749-762 CW Cipollo et	СК	Berninsone, "Nucleotide Sugar Transporters of the Golgi Apparatus." Current opinion in Structural Biology, Biology 10: 542-547 (2000)	
Length Murine and Human Endostatin", Yeast, 15:563-572 (1999). CN Bretthauer et al., "Glycosylation of <i>Pichia pastoris</i> -derived proteins", <i>Biotechnology and Applied Biochemistry</i> 30:193-200 (1999) CO Burda et al., "A Novel Carbohydrate-Deficient Glycoprotein Syndrome Characterized by a Deficiency in Glucosylation of the Dolichol-Linked Oligosaccharide", <i>J. Clin. Invest., Vol.</i> 102, <i>No.</i> 4, 647-652, <i>August</i> 1998. CP Burda et al., "Stepwise Assembly of the Lipid-Linked Oligosaccharide int he Endoplasmic Reticulum of Saccharomyces Cerevisiae: Idenfication of the ALG9 Gene Encoding a Putative Mannosyl Transferase", <i>Proc. Natl. Acad. Sci, U.S.A.</i> , July 1996 (93): 7160-7165. CQ Cereghino et al., "Heterologous protein expression in the methylotrophic yeast <i>Pichia pastoris</i> ", <i>FEMS Microbiology Reviews</i> , 24(1):45-66 (2000). CR Cereghino et al., "New selectable marker/auxotrophic host strain combinations for molecular genetic manipulation of <i>Pichia pastoris</i> ", <i>Gene</i> , 263:159-169 (2001). CS Chantret et al., "Congenital Disorders of Glycosylation Type Ig is Defined by a Deficiency in Dolichyl-P-mannose: Man7GlcNAc2-PP-dolichyl mannosyltransferase", <i>J. Biol. Chem.</i> , Jul. 12, 2002 (277) 28:25815-25822. CT Chiba et al., "Production of Human Compatible High Mannose-type Sugar Chains in <i>Saccharomyces cerevisiae</i> ", <i>J. Biol. Chem.</i> , 273(41):26298-26304 (1998) CU Choi et al., "Use of combinatorial genetic libraries to humanize N-linked glycosylation in the yeast Pichia pastoris", <i>Proc. Natl. Acad. Sci.</i> USA 100:5022-5027 (2003). CV Cipollo et al., "The Saccharomyces Cerevisiae alg12delta Mutant Reveals a Role for the Middle-arm Alpha1, 2Man-and Upper-Arm alpha1, 2Manalpha1, 6Man- Residues of Glc3Man9GlcNAc2-PP-Dol in Regulating Glycoprotein Glycan Processing in the Endloplasmic Reticulum and Golgi Apparatus", <i>Glycobiology</i> 2002, (12) 11:749-762 CW Cipollo et al., "The Accumulation of Man(6)GlcNAc(2)-PP-dolichol in the <i>Saccharomyces Cerevisiae</i> alg3 Cells", <i>Biochim. Biophys. Acta</i> , 1289 (3):336-42 (1996).	CL	the 1.6 µm circular plasmid pKD1", Current Genetics, 12:185-192 (1987).	
Applied Biochemistry 30:193-200 (1999) CO Burda et al., "A Novel Carbohydrate-Deficient Glycoprotein Syndrome Characterized by a Deficiency in Glucosylation of the Dolichol-Linked Oligosaccharide", <i>J. Clin. Invest., Vol. 102, No. 4, 647-652, August</i> 1998. CP Burda et al., "Stepwise Assembly of the Lipid-Linked Oligosaccharide int he Endoplasmic Reticulum of Saccharomyces Cerevisiae: Idenfication of the ALG9 Gene Encoding a Putative Mannosyl Transferase", <i>Proc. Natl. Acad. Sci, U.S.A.</i> , July 1996 (93): 7160-7165. CQ Cereghino et al., "Heterologous protein expression in the methylotrophic yeast <i>Pichia pastoris</i> ", <i>FEMS Microbiology Reviews</i> , 24(1):45-66 (2000). CR Cereghino et al., "New selectable marker/auxotrophic host strain combinations for molecular genetic manipulation of <i>Pichia pastoris</i> ", <i>Gene</i> , 263:159-169 (2001). CS Chantret et al., "Congenital Disorders of Glycosylation Type Ig is Defined by a Deficiency in Dolichyl-P-mannose: Man7GlcNAc2-PP-dolichyl mannosyltransferase", <i>J. Biol. Chem.</i> , Jul. 12, 2002 (277) 28:25815-25822. CT Chiba et al., "Production of Human Compatible High Mannose-type Sugar Chains in <i>Saccharomyces cerevisiae</i> ", <i>J. Biol. Chem.</i> , 273(41):26298-26304 (1998) CU Choi et al., "Use of combinatorial genetic libraries to humanize N-linked glycosylation in the yeast Pichia pastoris", <i>Proc. Natl. Acad. Sci.</i> USA 100:5022-5027 (2003). CV Cipollo et al., "The <i>Saccharomyces Cerevisiae alg</i> 12delta Mutant Reveals a Role for the Middle-arm Alpha1,2Man-and Upper-Arm alpha1,2Manalpha1,6Man-Residues of Glc3Man9GlcNAc2-PP-Dol in Regulating Glycoprotein Glycan Processing in the Endloplasmic Reticulum and Golgi Apparatus", <i>Glycobiology</i> 2002, (12) 11749-762 CW Cipollo et al., "The Accumulation of Man(6)GlcNAc(2)-PP-dolichol in the <i>Saccharomyces Cerevisiae Alg</i> 9 Mutant Reveals a Regulatory Role for the Alg3P alpha1,3-Man Middle-Arm Addition in Downstream Oligosaccharide-Lipid and Glycoprotein Glycan Processing", <i>J. Biol. Chem.</i> , Feb. 11, 2000 (275) 6:-4267-4277. CX Cueva et al., "P	СМ	Length Murine and Human Endostatin", Yeast, 15:563-572 (1999).	
Deficiency in Glucosylation of the Dolichol-Linked Oligosaccharide", <i>J. Clin. Invest.</i> , Vol. 102, No. 4, 647-652, August 1998. CP Burda et al., "Stepwise Assembly of the Lipid-Linked Oligosaccharide int he Endoplasmic Reticulum of Saccharomyces Cerevisiae: Idenfication of the ALG9 Gene Encoding a Putative Mannosyl Transferase", <i>Proc. Natl. Acad. Sci. U.S.A.</i> , July 1996 (93): 7160-7165. CQ Cereghino et al., "Heterologous protein expression in the methylotrophic yeast <i>Pichia pastoris</i> ", <i>FEMS Microbiology Reviews</i> , 24(1):45-66 (2000). CR Cereghino et al., "New selectable marker/auxotrophic host strain combinations for molecular genetic manipulation of <i>Pichia pastoris</i> ", <i>Gene</i> , 263:159-169 (2001). CS Chantret et al., "Congenital Disorders of Glycosylation Type Ig is Defined by a Deficiency in Dolichyl-P-mannose: Man/GlcNac2-PP-dolichyl mannosyltransferase", <i>J. Biol. Chem.</i> , Jul. 12, 2002 (277) 28:25815-25822. CT Chiba et al., "Production of Human Compatible High Mannose-type Sugar Chains in <i>Saccharomyces cerevisiae</i> ", <i>J. Biol. Chem.</i> , 273(41):26298-26304 (1998) CU Choi et al., "Use of combinatorial genetic libraries to humanize N-linked glycosylation in the yeast Pichia pastoris", <i>Proc. Natl. Acad. Sci.</i> USA 100:5022-5027 (2003). CV Cipollo et al., "The <i>Saccharomyces Cerevisiae</i> alg/12delta Mutant Reveals a Role for the Middle-arm Alpha1, 2Man-and Upper-Arm alpha1, 2Manalpha1,6Man- Residues of Glc3Man9GlcNac2-PP-Dol in Regulating Glycoprotein Glycan Processing in the Endloplasmic Reticulum and Golgi Apparatus", <i>Glycobiology</i> 2002, (12) 11:749-762 CW Cipollo et al., "The Accumulation of Man(6)GlcNac(2)-PP-dolichol in the Saccharomyces Cerevisiae Alg9 Mutant Reveals a Regulatory Role for the Alg3P alpha1,3-Man Middle-Arm Addition in Downstream Oligosaccharide-Lipid and Glycoprotein Glycan Processing", <i>J. Biol. Chem.</i> , Feb. 11, 2000 (275) 6:-4267-4277. CX Cueva et al., "Preferential Transfer to Truncated Oligosaccharides to the First Sequon of Yeast Exoglucanase in Saccharomyces Cerevisiae alg3	CN	Applied Biochemistry 30:193-200 (1999)	
Reticulum of Saccharomyces Cerevisiae: Idenfication of the ALG9 Gene Encoding a Putative Mannosyl Transferase", <i>Proc. Natl. Acad. Sci, U.S.A.</i> , July 1996 (93): 7160-7165. CQ Cereghino et al., "Heterologous protein expression in the methylotrophic yeast <i>Pichia pastoris</i> ", <i>FEMS Microbiology Reviews</i> , 24(1):45-66 (2000). CR Cereghino et al., "New selectable marker/auxotrophic host strain combinations for molecular genetic manipulation of <i>Pichia pastoris</i> ", <i>Gene</i> , 263:159-169 (2001). CS Chantret et al., "Congenital Disorders of Glycosylation Type Ig is Defined by a Deficiency in Dolichyl-P-mannose: Man7 ClotNac2-PP-dolichyl mannosyltransferase", <i>J. Biol. Chem.</i> , Jul. 12, 2002 (277) 28:25815-25822. CT Chiba et al., "Production of Human Compatible High Mannose-type Sugar Chains in <i>Saccharomyces cerevisiae</i> ", <i>J. Biol. Chem.</i> , 273(41):26298-26304 (1998) CU Choi et al., "Use of combinational genetic libraries to humanize N-linked glycosylation in the yeast Pichia pastoris", <i>Proc. Natl. Acad. Sci.</i> USA 100:5022-5027 (2003). CV Cipollo et al., "The <i>Saccharomyces Cerevisiae alg</i> 12delta Mutant Reveals a Role for the Middle-arm Alpha1,2Man-and Upper-Arm alpha1,2Manlapha1,6Man- Residues of Glc3Man9GlcNAc2-PP-Dol in Regulating Glycoprotein Glycan Processing in the Endloplasmic Reticulum and Golgi Apparatus", <i>Glycobiology</i> 2002, (12) 11:749-762. CW Cipollo et al., "The Accumulation of Man(6)GlcNAc(2)-PP-dolichol in the <i>Saccharomyces Cerevisiae</i> Aalg9 Mutant Reveals a Regulatory Role for the Alg3P alpha1,3-Man Middle-Arm Addition in Downstream Oligosaccharide-Lipid and Glycoprotein Glycan Processing", <i>J. Biol. Chem.</i> , Feb. 11, 2000 (275) 6:-4267-4277. CX Cueva et al., "Preferential Transfer to Truncated Oligosaccharides to the First Sequon of Yeast Exoglucanase in Saccharomyces Cerevisiae alg3 Cells", <i>Biochim. Biophys. Acta</i> , 1289 (3):3336-42 (1996). CY Davidson et al., "A PCR-based strategy to generate integrative targeting alleles with large regions of homology", <i>Microbiol.</i> , 148(Pt8):2607-15 (2002). C	co	Deficiency in Glucosylation of the Dolichol-Linked Oligosaccharide", <i>J. Clin. Invest.</i> , Vol. 102, No. 4, 647-652, August 1998.	
 pastoris", FEMS Microbiology Reviews, 24(1):45-66 (2000). CR Cereghino et al., "New selectable marker/auxotrophic host strain combinations for molecular genetic manipulation of <i>Pichia pastoris</i>", <i>Gene</i>, 263:159-169 (2001). CS Chantret et al., "Congenital Disorders of Glycosylation Type Ig is Defined by a Deficiency in Dolichyl-P-mannose: Man7GlcNAc2-PP-dolichyl mannosyltransferase", <i>J. Biol. Chem.</i>, Jul. 12, 2002 (277) 28:25815-25822. CT Chiba et al., "Production of Human Compatible High Mannose-type Sugar Chains in <i>Saccharomyces cerevisiae</i>", <i>J. Biol. Chem.</i>, 273(41):26298-26304 (1998) CU Choi et al., "Use of combinatorial genetic libraries to humanize N-linked glycosylation in the yeast Pichia pastoris", <i>Proc. Natl. Acad. Sci.</i> USA 100:5022-5027 (2003). CV Cipollo et al., "The <i>Saccharomyces Cerevisiae alg</i> 12delta Mutant Reveals a Role for the Middle-arm Alpha1, 2Man-and Upper-Arm alpha1, 2Manalpha1,6Man-Residues of Glc3Man9GlcNAc2-PP-Dol in Regulating Glycoprotein Glycan Processing in the Endloplasmic Reticulum and Golgi Apparatus", <i>Glycobiology</i> 2002, (12) 11:749-762 CW Cipollo et al., "The Accumulation of Man(6)GlcNAc(2)-PP-dolichol in the <i>Saccharomyces Cerevisiae Aalg</i>9 Mutant Reveals a Regulatory Role for the Alg3P alpha1,3-Man Middle-Arm Addition in Downstream Oligosaccharide-Lipid and Glycoprotein Glycan Processing", <i>J. Biol. Chem.</i>, Feb. 11, 2000 (275) 6:-4267-4277. CX Cueva et al., "Preferential Transfer to Truncated Oligosaccharides to the First Sequon of Yeast Exoglucanase in Saccharomyces Cerevisiae alg3 Cells", <i>Biochim. Biophys. Acta</i>, 1289 (3):336-42 (1996). CY Davidson et al., "A PCR-based strategy to generate integrative targeting alleles with large regions of homology", <i>Microbiol.</i>, 148(Pt8):2607-15 (2002). CZ Davies et al., "Expression of GnTIII in a Recombinant Anti-CD20 CHO Production Cell Line: Expression of Antibodies with Altered Glycoforms Leads	СР	Reticulum of Saccharomyces Cerevisiae: Idenfication of the ALG9 Gene Encoding a Putative Mannosyl Transferase". <i>Proc. Natl. Acad. Sci, U.S.A.</i> , July 1996 (93): 7160-7165.	
 genetic manipulation of <i>Pichia pastoris</i>", <i>Gene</i>, 263:159-169 (2001). CS Chantret et al., "Congenital Disorders of Glycosylation Type Ig is Defined by a Deficiency in Dolichyl-P-mannose: Man7GlcNAc2-PP-dolichyl mannosyltransferase", <i>J. Biol. Chem.</i>, Jul. 12, 2002 (277) 28:25815-25822. CT Chiba et al., "Production of Human Compatible High Mannose-type Sugar Chains in <i>Saccharomyces cerevisiae</i>", <i>J. Biol. Chem.</i>, 273(41):26298-26304 (1998) CU Choi et al., "Use of combinatorial genetic libraries to humanize N-linked glycosylation in the yeast Pichia pastoris", <i>Proc. Natl. Acad. Sci.</i> USA 100:5022-5027 (2003). CV Cipollo et al., "The <i>Saccharomyces Cerevisiae</i> alg12delta Mutant Reveals a Role for the Middle-arm Alpha1,2Man-and Upper-Arm alpha1,2Manalpha1,6Man- Residues of Glc3Man9GlcNAc2-PP-Dol in Regulating Glycoprotein Glycan Processing in the Endloplasmic Reticulum and Golgi Apparatus", <i>Glycobiology</i> 2002, (12) 11:749-762 CW Cipollo et al., "The Accumulation of Man(6)GlcNAc(2)-PP-dolichol in the <i>Saccharomyces Cerevisiae</i> Δa/g9 Mutant Reveals a Regulatory Role for the Alg3P alpha1,3-Man Middle-Arm Addition in Downstream Oligosaccharide-Lipid and Glycoprotein Glycan Processing", <i>J. Biol. Chem.</i>, Feb. 11, 2000 (275) 6:-4267-4277. CX Cueva et al., "Preferential Transfer to Truncated Oligosaccharides to the First Sequon of Yeast Exoglucanase in Saccharomyces Cerevisiae alg3 Cells", <i>Biochim. Biophys. Acta</i>, 1289 (3):336-42 (1996). CY Davidson et al., "A PCR-based strategy to generate integrative targeting alleles with large regions of homology", <i>Microbiol.</i>, 148(Pt8):2607-15 (2002). CZ Davies et al., "Expression of GnTIII in a Recombinant Anti-CD20 CHO Production Cell Line: Expression of Antibodies with Altered Glycoforms Leads to an Increase in ADCC Through Higher Affinity for FcyRIII", <i>Biotechnol. Bioeng.</i>, 74(4):288-294 (2001). CA1 Duman et al., "O-Mannosylation of <i>Pichia Pa</i>	CQ	pastoris", FEMS Microbiology Reviews, 24(1):45-66 (2000).	
Dolichyl-P-mannose: Man7GlcNAc2-PP-dolichyl mannosyltransferase", <i>J. Biol. Chem.</i> , Jul. 12, 2002 (277) 28:25815-25822. CT Chiba et al., "Production of Human Compatible High Mannose-type Sugar Chains in Saccharomyces cerevisiae", <i>J. Biol. Chem.</i> , 273(41):26298-26304 (1998) CU Choi et al., "Use of combinatorial genetic libraries to humanize N-linked glycosylation in the yeast Pichia pastoris", <i>Proc. Natl. Acad. Sci.</i> USA 100:5022-5027 (2003). CV Cipollo et al., "The Saccharomyces Cerevisiae alg12delta Mutant Reveals a Role for the Middle-arm Alpha1, 2Man-and Upper-Arm alpha1,2Manalpha1,6Man- Residues of Glc3Man9GlcNAc2-PP-Dol in Regulating Glycorotein Glycan Processing in the Endloplasmic Reticulum and Golgi Apparatus", <i>Glycobiology</i> 2002, (12) 11:749-762 CW Cipollo et al., "The Accumulation of Man(6)GlcNAc(2)-PP-dolichol in the Saccharomyces Cerevisiae Δalg9 Mutant Reveals a Regulatory Role for the Alg3P alpha1,3-Man Middle-Arm Addition in Downstream Oligosaccharide-Lipid and Glycoprotein Glycan Processing", <i>J. Biol. Chem.</i> , Feb. 11, 2000 (275) 6:-4267-4277. CX Cueva et al., "Preferential Transfer to Truncated Oligosaccharides to the First Sequon of Yeast Exoglucanase in Saccharomyces Cerevisiae alg3 Cells", <i>Biochim. Biophys. Acta</i> , 1289 (3):336-42 (1996). CY Davidson et al., "A PCR-based strategy to generate integrative targeting alleles with large regions of homology", <i>Microbiol.</i> , 148(Pt8):2607-15 (2002). CZ Davies et al., "Expression of GnTIII in a Recombinant Anti-CD20 CHO Production Cell Line: Expression of Antibodies with Altered Glycoforms Leads to an Increase in ADCC Through Higher Affinity for FcyRIII", <i>Biotechnol. Bioeng.</i> , 74(4):288-294 (2001). CA1 Duman et al., "O-Mannosylation of <i>Pichia Pastoris</i> Cellular and Recombinant Proteins", <i>Biotechnology and Applied Biochemistry</i> , 1998. Volume 28, pages 39-45.		genetic manipulation of Pichia pastoris", Gene, 263:159-169 (2001).	
CT Chiba et al., "Production of Human Compatible High Mannose-type Sugar Chains in Saccharomyces cerevisiae", J. Biol. Chem., 273(41):26298-26304 (1998) CU Choi et al., "Use of combinatorial genetic libraries to humanize N-linked glycosylation in the yeast Pichia pastoris", Proc. Natl. Acad. Sci. USA 100:5022-5027 (2003). CV Cipollo et al., "The Saccharomyces Cerevisiae alg12delta Mutant Reveals a Role for the Middle-arm Alpha1,2Man-and Upper-Arm alpha1,2Manalpha1,6Man- Residues of Glc3Man9GlcNAc2-PP-Dol in Regulating Glycoprotein Glycan Processing in the Endloplasmic Reticulum and Golgi Apparatus", Glycobiology 2002, (12) 11:749-762 CW Cipollo et al., "The Accumulation of Man(6)GlcNAc(2)-PP-dolichol in the Saccharomyces Cerevisiae Alg9 Mutant Reveals a Regulatory Role for the Alg3P alpha1,3-Man Middle-Arm Addition in Downstream Oligosaccharide-Lipid and Glycoprotein Glycan Processing", J. Biol. Chem., Feb. 11, 2000 (275) 6:-4267-4277. CX Cueva et al., "Preferential Transfer to Truncated Oligosaccharides to the First Sequon of Yeast Exoglucanase in Saccharomyces Cerevisiae alg3 Cells", Biochim. Biophys. Acta, 1289 (3):336-42 (1996). CY Davidson et al., "A PCR-based strategy to generate integrative targeting alleles with large regions of homology", Microbiol., 148(Pt8):2607-15 (2002). CZ Davies et al., "Expression of GnTIII in a Recombinant Anti-CD20 CHO Production Cell Line: Expression of Antibodies with Altered Glycoforms Leads to an Increase in ADCC Through Higher Affinity for FcyRIII", Biotechnol. Bioeng., 74(4):288-294 (2001). CA1 Duman et al., "O-Mannosylation of Pichia Pastoris Cellular and Recombinant Proteins", Biotechnology and Applied Biochemistry. 1998, Volume 28, pages 39-45.	CS	Dolichyl-P-mannose: Man7GlcNAc2-PP-dolichyl mannosyltransferase", J. Biol. Chem., Jul. 12, 2002 (277) 28:25815-25822.	
 yeast Pichia pastoris", Proc. Natl. Acad. Sci. USA 100:5022-5027 (2003). CV Cipollo et al., "The Saccharomyces Cerevisiae alg12delta Mutant Reveals a Role for the Middle-arm Alpha1,2Man-and Upper-Arm alpha1,2Manalpha1,6Man- Residues of Glc3Man9GlcNAc2-PP-Dol in Regulating Glycoprotein Glycan Processing in the Endloplasmic Reticulum and Golgi Apparatus", Glycobiology 2002, (12) 11:749-762 CW Cipollo et al., "The Accumulation of Man(6)GlcNAc(2)-PP-dolichol in the Saccharomyces Cerevisiae Δalg9 Mutant Reveals a Regulatory Role for the Alg3P alpha1,3-Man Middle-Arm Addition in Downstream Oligosaccharide-Lipid and Glycoprotein Glycan Processing", J. Biol. Chem., Feb. 11, 2000 (275) 6:-4267-4277. CX Cueva et al., "Preferential Transfer to Truncated Oligosaccharides to the First Sequon of Yeast Exoglucanase in Saccharomyces Cerevisiae alg3 Cells", Biochim. Biophys. Acta, 1289 (3):336-42 (1996). CY Davidson et al., "A PCR-based strategy to generate integrative targeting alleles with large regions of homology", Microbiol., 148(Pt8):2607-15 (2002). CZ Davies et al., "Expression of GnTIII in a Recombinant Anti-CD20 CHO Production Cell Line: Expression of Antibodies with Altered Glycoforms Leads to an Increase in ADCC Through Higher Affinity for FcγRIII", Biotechnol. Bioeng., 74(4):288-294 (2001). CA1 Duman et al., "O-Mannosylation of Pichia Pastoris Cellular and Recombinant Proteins", Biotechnology and Applied Biochemistry, 1998, Volume 28, pages 39-45. 	СТ	Chiba et al., "Production of Human Compatible High Mannose-type Sugar Chains in Saccharomyces cerevisiae", J. Biol. Chem., 273(41):26298-26304 (1998)	
 Middle-arm Alpha1,2Man-and Upper-Arm alpha1,2Manalpha1,6Man-Residues of Glc3Man9GlcNAc2-PP-Dol in Regulating Glycoprotein Glycan Processing in the Endloplasmic Reticulum and Golgi Apparatus", Glycobiology 2002, (12) 11:749-762 CW Cipollo et al., "The Accumulation of Man(6)GlcNAc(2)-PP-dolichol in the Saccharomyces Cerevisiae Δalg9 Mutant Reveals a Regulatory Role for the Alg3P alpha1,3-Man Middle-Arm Addition in Downstream Oligosaccharide-Lipid and Glycoprotein Glycan Processing", J. Biol. Chem., Feb. 11, 2000 (275) 6:-4267-4277. CX Cueva et al., "Preferential Transfer to Truncated Oligosaccharides to the First Sequon of Yeast Exoglucanase in Saccharomyces Cerevisiae alg3 Cells", Biochim. Biophys. Acta, 1289 (3):336-42 (1996). CY Davidson et al., "A PCR-based strategy to generate integrative targeting alleles with large regions of homology", Microbiol., 148(Pt8):2607-15 (2002). CZ Davies et al., "Expression of GnTIII in a Recombinant Anti-CD20 CHO Production Cell Line: Expression of Antibodies with Altered Glycoforms Leads to an Increase in ADCC Through Higher Affinity for FcyRIII", Biotechnol. Bioeng., 74(4):288-294 (2001). CA1 Duman et al., "O-Mannosylation of Pichia Pastoris Cellular and Recombinant Proteins", Biotechnology and Applied Biochemistry, 1998, Volume 28, pages 39-45. 	CU	veast Pichia pastoris", Proc. Natl. Acad. Sci. USA 100:5022-5027 (2003).	
 CW Cipollo et al., "The Accumulation of Man(6)GlcNAc(2)-PP-dolichol in the Saccharomyces Cerevisiae Δalg9 Mutant Reveals a Regulatory Role for the Alg3P alpha1,3-Man Middle-Arm Addition in Downstream Oligosaccharide-Lipid and Glycoprotein Glycan Processing", J. Biol. Chem., Feb. 11, 2000 (275) 6:-4267-4277. CX Cueva et al., "Preferential Transfer to Truncated Oligosaccharides to the First Sequon of Yeast Exoglucanase in Saccharomyces Cerevisiae alg3 Cells", Biochim. Biophys. Acta, 1289 (3):336-42 (1996). CY Davidson et al., "A PCR-based strategy to generate integrative targeting alleles with large regions of homology", Microbiol., 148(Pt8):2607-15 (2002). CZ Davies et al., "Expression of GnTIII in a Recombinant Anti-CD20 CHO Production Cell Line: Expression of Antibodies with Altered Glycoforms Leads to an Increase in ADCC Through Higher Affinity for FcyRIII", Biotechnol. Bioeng., 74(4):288-294 (2001). CA1 Duman et al., "O-Mannosylation of Pichia Pastoris Cellular and Recombinant Proteins", Biotechnology and Applied Biochemistry, 1998, Volume 28, pages 39-45. 	CV	Middle-arm Alpha1,2Man-and Upper-Arm alpha1,2Manalpha1,6Man- Residues of Glc3Man9GlcNAc2-PP-Dol in Regulating Glycoprotein Glycan Processing in the Endloplasmic Reticulum and Golgi Apparatus". <i>Glycobiology</i> 2002, (12) 11:749-762	
CX Cueva et al., "Preferential Transfer to Truncated Oligosaccharides to the First Sequon of Yeast Exoglucanase in Saccharomyces Cerevisiae alg3 Cells", <i>Biochim. Biophys. Acta</i> , 1289 (3):336-42 (1996). CY Davidson et al., "A PCR-based strategy to generate integrative targeting alleles with large regions of homology", <i>Microbiol.</i> , 148(Pt8):2607-15 (2002). CZ Davies et al., "Expression of GnTIII in a Recombinant Anti-CD20 CHO Production Cell Line: Expression of Antibodies with Altered Glycoforms Leads to an Increase in ADCC Through Higher Affinity for FcyRIII", <i>Biotechnol. Bioeng.</i> , 74(4):288-294 (2001). CA1 Duman et al., "O-Mannosylation of <i>Pichia Pastoris</i> Cellular and Recombinant Proteins", <i>Biotechnology and Applied Biochemistry</i> , 1998, Volume 28, pages 39-45.	CW	Cipollo et al., "The Accumulation of Man(6)GlcNAc(2)-PP-dolichol in the Saccharomyces Cerevisiae Δalg9 Mutant Reveals a Regulatory Role for the Alg3P alpha1,3-Man Middle-Arm Addition in Downstream Oligosaccharide-Lipid and Glycoprotein Glycan Processing", J. Biol. Chem. Feb. 11, 2000 (275) 6:-4267-4277.	
regions of homology", <i>Microbiol.</i> , 148(Pt8):2607-15 (2002). CZ Davies et al., "Expression of GnTIII in a Recombinant Anti-CD20 CHO Production Cell Line: Expression of Antibodies with Altered Glycoforms Leads to an Increase in ADCC Through Higher Affinity for FcyRIII", <i>Biotechnol. Bioeng.</i> , 74(4):288-294 (2001). CA1 Duman et al., "O-Mannosylation of <i>Pichia Pastoris</i> Cellular and Recombinant Proteins", <i>Biotechnology and Applied Biochemistry</i> , 1998, Volume 28, pages 39-45.	СХ	Cueva et al., "Preferential Transfer to Truncated Oligosaccharides to the First Sequon of Yeast Exoglucanase in Saccharomyces Cerevisiae alg3 Cells", <i>Biochim. Biophys. Acta</i> , 1289 (3):336-42 (1996).	
Expression of Antibodies with Altered Glycoforms Leads to an Increase in ADCC Through Higher Affinity for FcyRIII", Biotechnol. Bioeng., 74(4):288-294 (2001). CA1 Duman et al., "O-Mannosylation of Pichia Pastoris Cellular and Recombinant Proteins", Biotechnology and Applied Biochemistry, 1998, Volume 28, pages 39-45.	CY	regions of homology". Microbiol., 148(Pt8):2607-15 (2002).	
CA1 Duman et al., "O-Mannosylation of <i>Pichia Pastoris</i> Cellular and Recombinant Proteins", Biotechnology and Applied Biochemistry, 1998, Volume 28, pages 39-45.	CZ	Expression of Antibodies with Altered Glycoforms Leads to an Increase in ADCC Through Higher Affinity for FcyRIII", <i>Biotechnol. Bioeng.</i> , 74(4):288-294 (2001).	
The state of the state of the Hometer CMD Siglic Acid Transporter" Fur I	CA1	Duman et al., "O-Mannosylation of <i>Pichia Pastoris</i> Cellular and Recombinant Proteins", <i>Biotechnology and Applied Biochemistry</i> , 1998, Volume 28, pages 39-45.	
Biochem., 248(1):187-192 (1997).	CB1	Eckhardt et al., "Molecular Cloning of the Hamster CMP-Sialic Acid Transporter", Eur. J.	

Examiner	Date	
Signature	Considered	

Sub	estitute for form 1449A/B/PT	·0		Complete if Known		
	outde for form 14407 VBM 1	•		Application Number	10/500,240	
11	NFORMATION	I DI	SCLOSURE	Filing Date	June 25, 2004	
S	TATEMENT	3Y /	APPLICANT	First Named Inventor	Stefan Wildt et al.	
		- , .		Art Unit	Not Yet Assigned	
	(Use as many sheets as necessary)			Examiner Name	Not Yet Assigned	
Sheet	3	of	6	Attorney Docket Number	GFI/102	

C	CC1	Fukuta et al., "Comparative Study for the N-Glycans of Hum M Produced by Hybridoma and Parental Cells", <i>Archives of</i> 378(1), 142-150 (2000).	an Monoclona Biochemistry a	I Immunogloblulins and Biophysics,				
C	CD1	Gibbs et al., "Dolichylpyrophosphate Oligosaccharides: Lar as Oligosaccharyltransferase Substrates" Bioorganic & Med	lical Chemistry	[,] 7 (1999) 441-447.				
	CE1	Gleeson, Paul A. "Targeting of Proteins to the Golgi Appara 109:517-532 (1998).	tus", <i>Histochei</i>	m. Cell Biol.,				
C	CF1	Vacuolar Protein Sorting Events Defined in Yeast sec18 (NSF) Mutant", J. Cell. Biol., 114(2):207-218 (1991).						
C	CG1	Grimme et al., "The essential Smp3 Protein is Required for Addition of the Side-Branching Fourth Mannose During Assembly of Yeast Glycosylphosphatidylinositols", <i>J. Biol. Chem.</i> , July 20, 2001, (276)29:2773-27739.						
C	CH1 Guillen et al., "Mammalian Golgi Apparatus UDP- <i>N</i> -acetylglucosamine Transporter: Molecular Cloning by Phenotypic Correction of a Yeast Mutant", <i>Proc. Natl. Acad. Sci. USA</i> , 95(14):7888-7892 (1998).							
	CI1 Hamilton et al., "Yeast mutants deficient in protein glycosylation", Production of Complex Human Glycoproteins in Yeast", Science, 301:1244-46 (2003).							
	CJ1 Hernandez et al., "Structure of the Phosphorylated N-Linked Oligosaccharides from the mnn9 and mnn10 Mutants of Saccharomyces cerevisiae", The Journal of Biological Chemistry, 264(23):13648-13659 (1989).							
	CK1 Huffaker et al., "Yeast Mutants Deficient in Protein Glycosylation", Proc. Natl. Acad. Sci. U.S.A., Dec. 1983 (80): 7466-7470.							
	CL1	Imbach, et al. "A Mutation in the Human Ortholog of the Saccharomyces Cerevisiae ALG6 Gene Causes Carbohydrate-Deficient Glycoprotein Syndrome Type-Ic.", Proc, Natl. Acad. Sci. U.S.A., June 1999 (96), 6981-6987.						
(CM1	Ishida et al., "Molecular Cloning and Characterization of a Novel Isoform of the Human UDP-Galactose Transporter, and of Related Complementary DNAs Belonging to the Nucleotide-Sugar Transporter Gene Family", J. Biochem., (Tokyo) 120(6):1074-1078 (1996).						
	CN1	Ishida et al., "Molecular Cloning and Functional Expression Acetylglucosamine Transporter", J. Biochem., 126(1):68-77	of the Human ' (1999).	Golgi UDP-N-				
	CO1	Jarvis et al., "Engineering N-glycosylation pathways in the l Current Opinion in Biotechnology, 9:528-533 (1998).	oaculovirus-ins					
	CP1	Kainuma, "Coexpression of α1,2 galactosyltransferase and efficiently galatosylates <i>N</i> - and <i>O</i> -glycan in <i>Saccharomyces</i> 133-141 (1999).	s cerevisiae", C	Glycobiology, 9(2):				
	CQ1							
	CR1							
(CS1							
	CT1	Krezdorn et al., "Human β1,4 galactosyltransferase and α2 Saccharomyces cerevisiae are retained as active enzymes <i>J. Biochem.</i> , 220(3):809-17 (1994).	,6 sialytransfer in the endopla	rase expressed in esmic reticulum", Eur.				
Examiner Signature			Date Considered					

PTO/SB/08a/b (08-03)
Approved for use through 07/31/2006. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

GFI/102

Under the Paperwork Reduction Act of 1995, no persons are re	quired to respond to a collection	of information unless it contains a valid OMB control number.	
Substitute for form 1449A/B/PTO	Complete if Known		
Substitute for form 1443/25/17	Application Number	10/500,240	
INFORMATION DISCLOSURE	Filing Date	June 25, 2004	
STATEMENT BY APPLICANT	First Named Inventor	Stefan Wildt et al.	
	Art Unit	Not Yet Assigned	
(Use as many sheets as necessary)	Examiner Name	Not Yet Assigned	

Attorney Docket Number

CU1	Malissard et al., "Expression of Functional Soluble Forms of Human β-1,4-
COT	Galactosyltransferase I, α-2,6-Sialytransferase, and α-1,3-Fucosyltransferase VI in the Methylotrophic Yeast <i>Pichia pastoris</i> ", <i>Biochemical and Biophysical Research Communications</i> , 267:169-173 (2000).
CV1	Maras et al., "In vitro conversion of the carbohydrate moiety of fungal glycoproteins to mammalian-type oligosaccharides", Eur. J. Biochem., 249:701-707 (1997)
CW1	Maras et al., "In Vivo Synthesis of Complex N-glycans by Expression of Human N-acetylglucosaminyltransferase I in the Filamentous Fungus Trichoderma Reesei", Febs Letters 452(3): 365-370 (1999).
CX1	Martinet et al., "Modification of the Protein Glycosylation Pathway in the Methylotrophic Yeast Pichia pastoris" Biotechnology Letters, 20:1171-1177 (1998)
CY1	Miele et al., "Glycosylation properties of the <i>Pichia pastoris</i> -expressed recombinant kringle 2 domain of tissue-type plasminogen activator", <i>Biotechnol. Appl. Biochem.</i> , 25:151-157 (1997)
CZ1	Miele et al., "Glycosylation of Asparagine-28 of Recombinant Staphylokinase with High-Mannose-Type Oligosaccharides Results in a Protein with Highly Attenuated Phasminogen Activator Activity", <i>Journal of Biological Chemistry</i> , 19 March 1999, Volume 274, No. 12, pages 7769-7776
CA2	Minowa et al., "cDNA Cloning and Expression of Bovine UDP-N-Acetylglucosamine: α1, 3-D-Mannoside β1,4-N-acetylglucosaminyltransferase IV", <i>J. Biol. Chem.</i> , 273 (19), 1998, 11556-11562
CB2	Moller et al., "Control of Glycoprotein Synthesis: Substrate Specificity of Rat Liver UDP-GlcNAc:Man alpha 3R beta 2-N-Acetylglucosaminyltransferase I Using Synthetic Substrate Analogues", Glycoconj J., 1992 Aug.; 9(4): 180-90.
CC2	Nakanishi-Shindo et al., "Structure of the N-Linked Oligosaccharides That Show the Complete Loss of α-1,6-Polymannose Outer Chain from och1, och1 mnn1, and och1 mnn1 alg3 Mutants in Saccharomyces cerevisiae", J. Biol. Chem., 268(35):26338-45 (1993).
CD2	Omtvedt et al., "Glycosylation of Immunoglobulin Light Chains Associated with Amyloidosis", Amyloid: International Journal of Experimental and Clinical Investigation, 2000, Volume 7,
CE2	Papac et al., "A high-throughput microscale method to release N-linked oligosaccharides from glycoproteins for matrix-assisted laser desorption/ionization time-of-flight mass spectrometric analysis". A.I.S. <i>Glycobiology</i> , 8:445-454 (1998).
CF2	Perez et al., "Transport of Sugar Nucleotides into the Lumen of Vesicles Derived from Rat Liver Rough Endoplasmic Reticulum and Golgi Apparatus", <i>Methods in Enzymology</i> , 138:709-715 (1987)
CG2	Puglielli et al., "Reconstitution, Identification, and Purification of the Rat Liver Golgi Membrane GDP-fucose Transporter", J. Biol. Chem. 274(50):35596-35600 (1999).
CH2	Raju et al., "Species-specific variation in glycosylation of IgG: evidence for the species-specific sialyation and branch-specific galactosylation and importance for engineering recombinant glycoprotein therapeutics", <i>Glycobiology</i> , 10(5):477-486 (2000)
Cl2	Reiss et al., "Isolation of the ALG6 Locus of Saccharomyces Cerevisiae Required for blycosylation in the N-lined Glycosylation Pathway", Glycobiology, 1996, July 6(5):493-8.
CJ2	Runge et al., "A New Yeast Mutant in the Glucosylation Steps for the Asparagine-Linked Glycosylation Pathway", <i>Journal of Biological Chemistry</i> , 25 November 1986, Volume 261, No. 133, Pages 15582-15590.
CK2	Schachter et al., "The 'Yellow Brick Road' to Branched Complex N-glycans", Glycobiology 1(5): 453-461, 1991.

Examiner	Date	
Signature	Considered	<u></u>

Sheet

4

of

6

Substitute for form 1449A/B/PTO				Complete if Known		
	3011.01.01.11.11.11.11.11.10.10.00			Application Number	10/500,240	
INFORMATION DISCLOSURE				Filing Date	June 25, 2004	
S	TATEMENT	T BY A	PPLICANT	First Named Inventor	Stefan Wildt et al.	
				Art Unit	Not Yet Assigned	
1	(Use as many sheets as necessary)			Examiner Name	Not Yet Assigned	
Sheet	5	of	6	Attorney Docket Number	GFI/102	

С	L2	Schwientek et al., "Golgi Localization in Yeast is Mediated b		ne Anchor Region in	
		Rat Liver Sialyltransferase", J. Biol. Chem., 270(10):5483-54	189 (1995).		
C	:M2	Segawa et al., "Schizosaccharomyces pombe UDP-galatose functional form through cDNA cloning and expression in ma 451(3):295-298 (1999).	mmalian cells"	, FEBS Letters,	
С	N2	Sharma et al., "Biosynthesis of Lipid-Linked Oligosaccharide Encodes the Dol-P-Man: Man(5)GlcNAc(2)-PP-Dol Mannos Chemistry, 382(2): 321-328 (2001).	syltransferase"	', Biological	
С	O2	Sommers et al., "Transport of Sugar Nucleotides into Rat Li (1981).			
С	P2	Sommers et al., "Transport of Sugar Nucleotides into Rat Li Activity", J. Cell Biol., 257(18):811-817 (1982).			
С	Q2	Stagljar et al., "New Phentoype of Mutations Deficient in Glu Oligosaccharide: Cloning of the ALG8 Locus", Proc. Natl. A. 5981, June 1994.	cad. Sci. USA,	, Vol. 91, pp. 5977-	
C	R2	Suzuki C., "Immunochemical and Mutational Analyses of P- Yeast Secretory Pathway", <i>Bioscience Biotechnology Bioch</i> 11, 2405-2411.	emistry 2001,	Volume 65, Number	
C	S2	Takahashi N. et al., "Comparative Structural Study of the N- Human Normal and Pathological Immunoglobulin", <i>Biochen</i> 1137-1144.	nistry, 1987, Vo	olume 26, pages	
C	CT2	Takeuchi, "Trial for Molecular Breeding of Yeast for the Pro- Therapeutics", Trends in Glycoscience and Glycotechnolog	y, 9:S29-S35 ((1997).	
C	CU2	Tremblay et al., "Cloning and Expression of a Specific Hum Man9GlcNAc2 to Man8GlcNAc2 Isomer B during N-Glycan Volume 9, Number 10, pages 1073-1078.	an α1,2-Mann Biosynthesis",	osidase that Trims , <i>Glycobiology</i> , 1999,	
C	CV2	Umana et al., "Tetracycline-Regulated Overexpression of G Hamster Ovary Cells", Biotechnol, Bioeng., 65(5):542-9 (19	99)		
C	CW2	Umana et al., "Engineered glycoforms of an antineuroblasto dependent cellular cytotoxic activity", Nat. Biotechnol., 17(2)	oma lgG1 with):176-80 (1999	9)	
C	CX2	Vasquez-Reyna, et al., "Biosynthesis of Blycoproteins in Ca Characterization of a Soluble Alpha-Mannosidase", FEMS I 106, pages 321-326.	andida Albican Microbiology L	s: Biochemical etters, 1993, Volume	
C	CY2	Verostek et al., "Glycoprotein Biosynthesis in the alg3 Sacc Stucture of Novel Man6-10GlcNAc2 Processing Intermedia Chem. June 5, 1993 (268) 16:12095-12103.	tes on Secrete	ed Invertase", J. Biol.	
C	CZ2	Weikert, et al., "Engineering Chinese Hamster Ovary Cells Recombinant Glycoproteins", Nature Biotechnology, 17(11)): 1116-1121 (<i>*</i>	1999).	
C	CA3 Yip et al., "Cloning and analysis of the Saccharomyces cerevisiae MNN9 and MNN1 gene required for complex glycosylation of secreted proteins", Proc. Natl. Acad. Sci. USA, 91(7):2723-7 (1994).				
C	CB3	Yoko-o et al., "Schizosaccharomyces Pombe Och1(+) Encc that is involved in Outer Chain Elongation of N-Linked Oligo 489(1):75-80 (2001).	osaccharides",	FEBS Lett.,	
C	ССЗ	Yoshida, et al., "1-2-alpha-D- mannosidase from Penicilliun properties of two isoenzymes", <i>Biochem. J.</i> 290 (Pt2):349-3	354 (1993).		
	CD3	Yoshida et al. STT3, a Novel Essential Gene Related to the Pathway, is Involved in Protein Glycosylation in Yeast", Ge	PKC1/STT1	Protein Kinase per 16;164(1):167-72.	
kaminer			Date		

Substitute for form 1449A/B/PTO				Complete if Known		
Oub.	Substitute for form 1440/00/110		Application Number	10/500,240		
INFORMATION DISCLOSURE				Filing Date	June 25, 2004	
S	STATEMENT BY APPLICANT (Use as many sheets as necessary)			First Named Inventor	Stefan Wildt et al.	
				Art Unit	Not Yet Assigned	
				Examiner Name	Not Yet Assigned	
Sheet	6	of	6	Attorney Docket Number	GFI/102	

CE3	Yoshida, et al., "Expression and characterization of rat EDP-N-acetylgluocosamine: α-3-D-mannoside β-1,2-N-acetylglucosaminyltransferase I in Saccharomyces cerevisiae",	
	Glycobiology, 9 (1):53-8 (1999).	

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Examiner Da	ate
Signature	onsidered

¹Applicant's unique citation designation number (optional). ²Applicant is to place a check mark here if English language Translation is attached.